



March 10, 2014

Jeffery F. Koerner, Program Administrator  
Florida Department of Environmental Protection  
Division of Air Resource Management  
Office of Air Permitting and Compliance  
2600 Blair Stone Road, M.S. 5505  
Tallahassee, Florida 32399-2400

Via Electronic Submission

*Jan*  
*module AB212*  
**RECEIVED**  
MAR 11 2014  
DIVISION OF AIR  
RESOURCE MANAGEMENT

**Re: Tampa Electric Company - Big Bend Station**  
**Title V Revision - Revise CAM Plan to authorize PM CPMS**  
**Title Permit No. 0570039-061-AV**  
**Facility ID No. 0570039**

Dear Mr. Koerner:

Tampa Electric Company (TEC) is submitting air permit application to revise the Compliance Assurance Monitoring (CAM) plan. The application requests a revision of the CAM plan to remove the existing Continuous Opacity Monitoring Systems (COMS) and authorize the PM continuous parameter monitoring systems (CPMS) to ensure compliance with the CAM Plan.

TEC believes the application provides reasonable assurance of complying with the provisions of Chapter 62-4 F.A.C. Please contact me at (813) 228-4232 or Byron Burrows at (813) 228-1282, if you have any questions.

Sincerely,

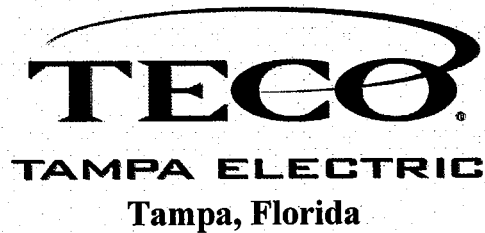
Robert A. Velasco, P.E., BCEE, QEP  
Air Programs  
Environmental, Health & Safety  
Tampa Electric Company

EHS/iym/RAV221 CAM revision to authorize PM CPMS ltr

**TAMPA ELECTRIC COMPANY  
BIG BEND POWER STATION**

**PM CPMS TITLE V  
AIR OPERATION PERMIT  
REVISION APPLICATION**

Prepared for:



Prepared by:



**ECT No. 100367-0202**

**March 2014**

**FDEP  
DIVISION OF AIR RESOURCE MANAGEMENT**

**APPLICATION FOR AIR PERMIT  
LONG FORM**



# Department of Environmental Protection

# RECEIVED

MAR 11 2014

## Division of Air Resource Management APPLICATION FOR AIR PERMIT - LONG FORM

### DIVISION OF AIR RESOURCE MANAGEMENT

### I. APPLICATION INFORMATION

**Air Construction Permit** – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

**Air Operation Permit** – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

#### Identification of Facility

1. Facility Owner/Company Name: <b>Tampa Electric Company</b>	
2. Site Name: <b>Big Bend Station</b>	
3. Facility Identification Number: <b>0570039</b>	
4. Facility Location... Street Address or Other Locator: <b>13031 Wyandotte Road</b> City: <b>Apollo Beach</b> County: <b>Hillsborough</b> Zip Code: <b>33572-9200</b>	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

#### Application Contact

1. Application Contact Name: <b>Robert (Rob) A. Velasco</b>	
2. Application Contact Mailing Address... Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>720 North Franklin Street</b> City: <b>Tampa</b> State: <b>Florida</b> Zip Code: <b>33602</b>	
3. Application Contact Telephone Numbers... Telephone: <b>(813) 228 - 4232</b> ext. Fax: <b>(813) 228 - 1308</b>	
4. Application Contact E-mail Address: <b>ravelasco@tecoenergy.com</b>	

#### Application Processing Information (DEP Use)

1. Date of Receipt of Application: <b>3-11-14</b>	3. PSD Number (if applicable):
2. Project Number(s): <b>0570039</b>	4. Siting Number (if applicable):

## APPLICATION INFORMATION

### Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

#### **Air Construction Permit**

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

#### **Air Operation Permit**

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

#### **Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)**

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

**Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:**

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

### Application Comment

Tampa Electric Company (Tampa Electric) is requesting a revision to the current Title V Air Operation Permit to allow use of raw parametric data from particulate matter (PM) continuous parametric monitoring system (CPMS) to be used as the indicator in lieu of opacity in the Compliance Assurance Monitoring (CAM) Plan (Attachment B [Appendix CAM]). The permitted PM emissions limit for Units 001 through 003 is 0.03 pound per million British thermal units (lb/MMBtu), which equates to a maximum concentration of approximately 29.8 milligrams per cubic meter ( $\text{mg}/\text{m}^3$ ). The maximum raw parametric concentration measured by the PM CPMS, which is equivalent to this maximum concentration, is approximately 16.5  $\text{mg}/\text{m}^3$  (raw parametric) (see reference data table in Attachment A, Requested Changes to Existing Title V Air Operation Permit).

The permitted PM emissions limit for Unit 004 is 0.01 lb/MMBtu, which equates to a maximum concentration of approximately 8.0  $\text{mg}/\text{m}^3$ . The maximum raw parametric concentration measured by the PM CPMS, which is equivalent to this maximum concentration is approximately 4.5  $\text{mg}/\text{m}^3$  (raw parametric).

Tampa Electric is requesting to define an excursion in the CAM Plan as any daily average PM (raw parametric) measured emission rate that exceeds 13  $\text{mg}/\text{m}^3$  (Units 001, 002, and 003) and 3.6  $\text{mg}/\text{m}^3$  (Unit 004). These CAM indicators represent 80% of the raw parametric equivalent of the current permitted PM emission limit.

**APPLICATION INFORMATION**

**Scope of Application**

<b>Emissions Unit ID Number</b>	<b>Description of Emissions Unit</b>	<b>Air Permit Type</b>	<b>Air Permit Processing Fee</b>
001 - 004	Fossil Fuel-Fired Steam Generator Unit Nos. 1 through 4	NA	NA

**Application Processing Fee**

Check one:  Attached - Amount: \$ \_\_\_\_\_  Not Applicable

**APPLICATION INFORMATION**

**Owner/Authorized Representative Statement**

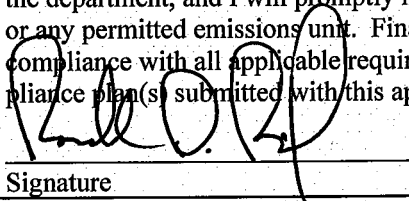
**Complete if applying for an air construction permit or an initial FESOP.**

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: ( ) - ext. Fax: ( ) -
4. Owner/Authorized Representative E-mail Address:
5. Owner/Authorized Representative Statement:  <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i>  Signature _____ Date _____

## APPLICATION INFORMATION

### Application Responsible Official Certification

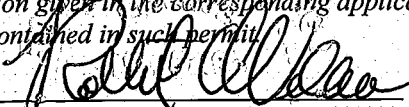
Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

1. Application Responsible Official Name: <b>Ronald D. Bishop</b>
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source or CAIR source.
3. Application Responsible Official Mailing Address... Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>P. O. Box 111</b> City: <b>Tampa</b> State: <b>Florida</b> Zip Code: <b>33601</b>
4. Application Responsible Official Telephone Numbers... Telephone: <b>(813) 228 - 4111 ext. 48345</b> Fax: ( ) -
5. Application Responsible Official E-mail Address: <b><u>rdbishop@tecoenergy.com</u></b>
6. Application Responsible Official Certification: <p>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</p> <p> Signature</p> <p><u>3/10/2014</u> Date</p>



# APPLICATION INFORMATION

## Professional Engineer Certification

1. Professional Engineer Name: <b>Robert A. Velasco, P.E.</b> Registration Number: <b>57190</b>
2. Professional Engineer Mailing Address... Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>702 North Franklin Street</b> City: <b>Tampa</b> State: <b>Florida</b> Zip Code: <b>33602</b>
3. Professional Engineer Telephone Numbers... Telephone: <b>(813) 228 - 4232</b> ext. Fax: <b>(813) 228 - 1308</b>
4. Professional Engineer E-mail Address: <b>ravelasco@tecoenergy.com</b>
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input checked="" type="checkbox"/>, if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application. <b>Title V Revision</b></i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i>   Signature _____ Date <u>3/10/2014</u> (seal)

\* Attach any exception to certification statement.

## II. FACILITY INFORMATION

### A. GENERAL FACILITY INFORMATION

#### Facility Location and Type

1. Facility UTM Coordinates... Zone 17      East (km) <b>363.15</b> North (km) <b>3074.91</b>		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) <b>27/47/36</b> Longitude (DD/MM/SS) <b>82/24/11</b>	
3. Governmental Facility Code: <b>0</b>	4. Facility Status Code: <b>A</b>	5. Facility Major Group SIC Code: <b>49</b>	6. Facility SIC(s): <b>4911</b>
7. Facility Comment :			

#### Facility Contact

1. Facility Contact Name: <b>Robert (Rob) A. Velasco</b>
2. Facility Contact Mailing Address... Organization/Firm: <b>Tampa Electric Company</b> Street Address: <b>720 North Franklin Street</b> City: <b>Tampa</b> State: <b>Florida</b> Zip Code: <b>33602</b>
3. Facility Contact Telephone Numbers: Telephone: <b>(813) 228 - 4232</b> ext.      Fax: <b>(813) 228 - 1308</b>
4. Facility Contact E-mail Address: <b>ravelasco@tecoenergy.com</b>

#### Facility Primary Responsible Official

**Complete if an "application responsible official" is identified in Section I that is not the facility "primary responsible official."**

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City:                                      State:                                      Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: ( ) -      ext.      Fax: ( ) -
4. Facility Primary Responsible Official E-mail Address:

**FACILITY INFORMATION**

**Facility Regulatory Classifications**

**Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”**

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	

## FACILITY INFORMATION

### List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
H133	A	N
HAPS	A	N
H106	A	N
H107	A	N
Lead	A	N
NO <sub>x</sub>	A	N
SO <sub>2</sub>	A	Y
PM <sub>10</sub>	A	N
CO	A	N
PM	A	Y
VOC	A	Y
NH <sub>3</sub>	C	N
F049	C	N
H187	C	N
H026	C	N
H021	C	N
H162	C	N
H114	C	N
H113	C	N
H110	C	N
H046	C	N

## FACILITY INFORMATION

### List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
H027	C	N
H015	C	N
H014	C	N
H182	C	N
H186	C	N
H163	C	N
H169	C	N
H167	C	N
H154	C	N
H144	C	N
H128	C	N
H126	C	N
H121	C	N
H120	C	N
H118	C	N
H117	C	N
H109	C	N
H095	C	N
H088	C	N
H089	C	N
H087	C	N
H085	C	N
H079	C	N
H054	C	N
H053	C	N

**FACILITY INFORMATION**

**List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
H043	C	N
H041	C	N
H040	C	N
H025	C	N
H023	C	N
H020	C	N
H017	C	N
H006	C	N
H004	C	N
H001	C	N
H151	C	N
H132	C	N
H022	C	N
H058	C	N
H165	C	N
H148	C	N
H047	C	N
H119	C	N
H125	C	N
H104	C	N
H076	C	N
H032	C	N

**FACILITY INFORMATION**

**B. EMISSIONS CAPS**

**Facility-Wide or Multi-Unit Emissions Caps**

1. Pollutant Subject to Emissions Cap	2. Facility-Wide Cap [Y or N]? (all units)	3. Emissions Unit ID's Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap
PM	N	1, 2, 3, 4		2,767	ESCPSD
SO <sub>2</sub>	N	1, 2, 3, 4		71,810	ESCPSD
VOC	N	1, 2, 3, 4		39	ESCPSD

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

## FACILITY INFORMATION

### C. FACILITY ADDITIONAL INFORMATION

#### Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)		
<input type="checkbox"/>	Attached, Document ID: _____	<input checked="" type="checkbox"/>	Previously Submitted, Date: <u>06/06/08</u>
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)		
<input type="checkbox"/>	Attached, Document ID: _____	<input checked="" type="checkbox"/>	Previously Submitted, Date: <u>06/06/08</u>
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought)		
<input type="checkbox"/>	Attached, Document ID: _____	<input checked="" type="checkbox"/>	Previously Submitted, Date: <u>06/06/08</u>

#### Additional Requirements for Air Construction Permit Applications

1.	Area Map Showing Facility Location:		
<input type="checkbox"/>	Attached, Document ID: _____	<input type="checkbox"/>	Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL):		
<input type="checkbox"/>	Attached, Document ID: _____		
3.	Rule Applicability Analysis:		
<input type="checkbox"/>	Attached, Document ID: _____		
4.	List of Exempt Emissions Units:		
<input type="checkbox"/>	Attached, Document ID: _____	<input type="checkbox"/>	Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification:		
<input type="checkbox"/>	Attached, Document ID: _____	<input type="checkbox"/>	Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.):		
<input type="checkbox"/>	Attached, Document ID: _____	<input type="checkbox"/>	Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.):		
<input type="checkbox"/>	Attached, Document ID: _____	<input type="checkbox"/>	Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.):		
<input type="checkbox"/>	Attached, Document ID: _____	<input type="checkbox"/>	Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.):		
<input type="checkbox"/>	Attached, Document ID: _____	<input type="checkbox"/>	Not Applicable
10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.):		
<input type="checkbox"/>	Attached, Document ID: _____	<input type="checkbox"/>	Not Applicable



## FACILITY INFORMATION

### C. FACILITY ADDITIONAL INFORMATION (CONTINUED)

#### Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units:  
 Attached, Document ID: \_\_\_\_\_  Not Applicable (no exempt units at facility)

#### Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities: (Required for initial/renewal applications only)  
 Attached, Document ID: \_\_\_\_\_  Not Applicable (revision application)
2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought)  
 Attached, Document ID: \_\_\_\_\_  
 Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan: (Required for all initial/revision/renewal applications)  
 Attached, Document ID: \_\_\_\_\_  
Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only)  
 Attached, Document ID: \_\_\_\_\_  
 Equipment/Activities Onsite but Not Required to be Individually Listed  
 Not Applicable
5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only)  
 Attached, Document ID: \_\_\_\_\_  Not Applicable
6. Requested Changes to Current Title V Air Operation Permit:  
 Attached, Document ID: **Attachment A**  Not Applicable

**FACILITY INFORMATION**

**C. FACILITY ADDITIONAL INFORMATION (CONTINUED)**

**Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program**

1. Acid Rain Program Forms:

Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):

Attached, Document ID: \_\_\_\_\_  Previously Submitted, Date: \_\_\_\_\_

Not Applicable (not an Acid Rain source)

Phase II NO<sub>x</sub> Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):

Attached, Document ID: \_\_\_\_\_  Previously Submitted, Date: \_\_\_\_\_

Not Applicable

New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):

Attached, Document ID: \_\_\_\_\_  Previously Submitted, Date: \_\_\_\_\_

Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):

Attached, Document ID: \_\_\_\_\_  Previously Submitted, Date: \_\_\_\_\_

Not Applicable (not a CAIR source)

**Additional Requirements Comment**

**ATTACHMENT A**

**REQUESTED CHANGES TO  
EXISTING TITLE V AIR OPERATION PERMIT**

**ATTACHMENT A**  
**REQUESTED CHANGES TO EXISTING TITLE V AIR OPERATION PERMIT**

Tampa Electric Company (Tampa Electric) is requesting the removal of all references to the use of a continuous opacity monitoring system (COMS) to demonstrate compliance with the visible emissions standards for Emissions Units (EUs) 001, 002, 003 and 004. These units, with the exception of EU 004, are not subject to the New Source Performance Standard, Chapter 40, Part 60, Code of Federal Regulations (CFR), Subpart Da. Furthermore, Rule 62-296.405(1)(f)(1)(a)(ii), Florida Administrative Code (F.A.C.), does not require a COMS on "any emissions unit using a wet scrubber." Therefore, there is no regulatory requirement for using COMS to demonstrate compliance with the visible emissions limits on EUs 001, 002, 003, or 004.

The following outlines the specific conditions in the current Title V air operation permit, (No. 0570039-061-AV) that will be affected by this requested change:

EUs 001, 002, and 003

Permit Condition A.11 – Delete second sentence, which reads, "*Emissions units governed by this visible emissions limit shall compliance test for particulate matter emission annually and as otherwise required by Chapter 62-297, F.A.C.*"

Permit Condition A.12 – Delete last sentence, which reads, "*Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emission allowed for boiler cleaning and load changes, at units which have installed continuous opacity monitors (COMS).*"

Permit Condition A.40 – Revise heading to read, "*SO<sub>2</sub> and NO<sub>x</sub> CEMS.*" Delete first sentence, which reads, "*For Units Nos. 1, 2 and 3, the permittee shall operate, calibrate, and maintain a continuous monitoring system for continuously monitoring opacity.*" Revise second sentence as follows "*For Unit Nos. 1 through 3, the permittee shall also operate, calibrate, ...*"

Permit Condition A.42 – Delete condition A.42(a)(1), which references performance specification for opacity continuous emissions monitoring systems.

Permit Condition A.44 – Revise condition to read, "*Annual Compliance Test. During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), Emissions Unit ID Nos. -001, -002, and -003 shall be tested to demonstrate compliance with the emissions limitations and standards for PM. The NO<sub>x</sub> and SO<sub>2</sub> RATA shall be used to demonstrate compliance with the annual NO<sub>x</sub> and SO<sub>2</sub> test requirement. The NO<sub>x</sub> and SO<sub>2</sub> certified CEMS and the PM CPMS shall be used to satisfy the annual VE test requirement. (Rule 62-297.310[7][c] F.A.C.)*"

Permit Condition A.55 – Revise last sentence to read, "*Exceedances of the visible emissions standards from the common stack shall be attributed to both units.*"

## EU 004

Permit Condition B.40 – Revise heading to read, “*SO<sub>2</sub> and NO<sub>x</sub> CEMS.*” Delete first sentence, which reads, “*The permittee shall operate, calibrate, and maintain a continuous monitoring system for continuously monitoring opacity.*” Revise second sentence as follows “The permittee shall also operate, calibrate, ...”

Permit Condition B.42 – Delete condition B.42(a)(1), which references performance specification for opacity continuous emissions monitoring systems.

Permit Condition B.44 – Revise condition to read, “*Annual Compliance Test. During each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>), Emissions Unit ID No. -004 shall be tested to demonstrate compliance with the emissions limitations and standards for PM. The NO<sub>x</sub> and SO<sub>2</sub> RATA shall be used to demonstrate compliance with the annual NO<sub>x</sub> and SO<sub>2</sub> test requirement. The NO<sub>x</sub> and SO<sub>2</sub> certified CEMS and the PM CPMS shall be used to satisfy the annual VE test requirement. (Rule 62-297.310[7][c] F.A.C.).*”

### **REQUESTED CHANGES TO EXISTING APPENDIX CAM**

The existing Appendix CAM uses opacity (visible emissions) as the compliance indicator for particulate matter (PM) emissions subject to compliance assurance monitoring for EUs 001 through 004. Tampa Electric is requesting a revision to Appendix CAM be revised to monitor PM emissions using raw parametric monitoring as a surrogate of PM emissions on EUs 001 through 004. Tampa Electric will continue to demonstrate compliance with the PM emissions limits of 0.03 pound per million British thermal units (lb/MMBtu) (EUs 001 through 003) and 0.01 lb/MMBtu (EU 004) by conducting annual compliance testing.

The following outlines the changes to Table 1, Monitoring Approach, in Appendix CAM that will be affected by this requested change:

- I. Indicator – PM Emissions  
Measurement Approach – The use of a continuous parametric monitoring system (CPMS) and data acquisition handling system (DAHS)
- II. Indicator Range – Maximum PM Emissions  
An excursion is defined as any daily average of raw parametric PM rate greater than 13 milligrams per cubic meter (mg/m<sup>3</sup>) (EUs 001, 002, and 003) and 3.6 mg/m<sup>3</sup> (EU 004) excluding periods of startup, shutdown, and malfunction pursuant to Section 62-210.700, F.A.C. An excursion will trigger an evaluation of the operation of the affected boiler and electrostatic precipitator. Corrective action will be taken as necessary. Any excursion will trigger recordkeeping and reporting requirements.
- III. Performance Criteria
  - A. Data Representativeness – The PM CEMS locations will meet the specifications of 40 CFR 60, Appendix B
  - B. Verification of Operational Status – Not applicable

- C. QA/QC Practices and Criteria – The PM CEMS are operated and maintained in accordance with Appendix B to 40 CFR 60
- D. Monitoring Frequency – Raw parametric data will be monitored continuously on a 1-hour basis
- E. Data Collection Procedures – Raw parametric data will be recorded through the automated DAHS
- F. Averaging Period – The averaging period for raw parametric data will be a daily average expressed in units of  $\text{mg}/\text{m}^3$ .

The following table is provided for reference only and shows the actual stack test data used to develop the raw parametric concentrations used to define an excursion in Attachment B (Appendix CAM):

### 2013 Stack Test Data

Parameter	Units 1 and 2	Unit 3	Unit 4
Emissions limit (lb/mmBtu)	0.03	0.03	0.01
Heat input (MMBtu/h)	8,329	4,242	4,305
Emissions rate (lb/hr)	249.9	127.3	43.1
Q (scf/hr)	140,600,371	68,428,571	86,071,429
Maximum concentration ( $\text{mg}/\text{m}^3$ )	28.5	29.8	8.0
Maximum raw concentration ( $\text{mg}/\text{m}^3$ )	15.8	16.5	4.5
80% maximum raw concentration ( $\text{mg}/\text{m}^3$ )	12.7	13.2	3.6

**ATTACHMENT B**

**TRACKED CHANGES OF EXISTING APPENDIX CAM**

## APPENDIX CAM

### CAM REQUIREMENTS (version dated 06/09/2005)

Pursuant to Rule 62-213.440(1)(b)1.a., F.A.C., the CAM plans that are included in this appendix contain the monitoring requirements necessary to satisfy 40 CFR 64. Conditions 1. - 17. are generic conditions applicable to all emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the attached tables, as submitted by the applicant and approved by the Department.

#### **40 CFR 64.6 Approval of Monitoring.**

1. The attached CAM plan(s), as submitted by the applicant, is/are approved for the purposes of satisfying the requirements of 40 CFR 64.3. [40 CFR 64.6(a)]
2. The attached CAM plan(s) include the following information:
  - a. The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);
  - b. The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and
  - c. The performance requirements established to satisfy 40 CFR 64.3(b) or (d), as applicable. [40 CFR 64.6(c)(1)]
3. The attached CAM plan(s) describe the means by which the owner or operator will define an exceedance of the permitted limits or an excursion from the stated indicator ranges and averaging periods for purposes of responding to (see **CAM Conditions 5. - 14.**) and reporting exceedances or excursions (see **CAM Conditions 15. - 16.**). [40 CFR 64.6(c)(2)]
4. The permittee is required to conduct the monitoring specified in the attached CAM plan(s) and shall fulfill the obligations specified in the conditions below (see **CAM Conditions 5. - 16.**). [40 CFR 64.6(c)(3)]

#### **40 CFR 64.7 Operation of Approved Monitoring.**

5. **Commencement of Operation.** The owner or operator shall conduct the monitoring required under this appendix upon the effective date of this Title V permit. [40 CFR 64.7(a)]
6. **Proper Maintenance.** At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment. [40 CFR 64.7(b)]
7. **Continued Operation.** Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. [40 CFR 64.7(c)]
8. **Response to Excursions or Exceedances.**
  - a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions, if allowed by this permit). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as



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through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR 64.7(d)(1) & (2)]

9. Documentation of Need For Improved Monitoring. If the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters. [40 CFR 64.7(e)]

#### 40 CFR 64.8 Quality Improvement Plan (QIP) Requirements.

10. Based on the results of a determination made under **CAM Condition 8.b.**, above, the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with **CAM Condition 4.**, an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, may require the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices. [40 CFR 64.8(a)]

#### 11. Elements of a QIP.

- a. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
- b. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
  - (1) Improved preventive maintenance practices.
  - (2) Process operation changes.
  - (3) Appropriate improvements to control methods.
  - (4) Other steps appropriate to correct control performance.
  - (5) More frequent or improved monitoring (only in conjunction with one or more steps under **CAM Condition 11.b(i) through (iv)**, above).

[40 CFR 64.8(b)]

12. If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined. [40 CFR 64.8(c)]
13. Following implementation of a QIP, upon any subsequent determination pursuant to **CAM Condition 8.b.**, the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
  - a. Failed to address the cause of the control device performance problems; or
  - b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

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### CAM REQUIREMENTS (version dated 06/09/2005)

[40 CFR 64.8(d)]

14. Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. [40 CFR 64.8(e)]

#### **40 CFR 64.9 Reporting And Recordkeeping Requirements.**

##### **15. General Reporting Requirements.**

- a. Commencing from the effective date of this permit, the owner or operator shall submit monitoring reports semi-annually to the permitting authority in accordance with Rule 62-213.440(1)(b)3.a., F.A.C.
- b. A report for monitoring under this part shall include, at a minimum, the information required under Rule 62-213.440(1)(b)3.a., F.A.C., and the following information, as applicable:
- (1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
  - (2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
  - (3) A description of the actions taken to implement a QIP during the reporting period as specified in **CAM Conditions 10. through 14.** Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR 64.9(a)]

##### **16. General Recordkeeping Requirements.**

- a. The owner or operator shall comply with the recordkeeping requirements specified in Rule 62-213.440(1)(b)2., F.A.C. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to **CAM Conditions 10. through 14.** and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
- b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9(b)]

#### **40 CFR 64.10 Savings Provisions.**

##### **17. It should be noted that nothing in this appendix shall:**

- a. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this appendix shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to Title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under Title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.
- b. Restrict or abrogate the authority of the Administrator or the permitting authority to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of

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a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.

- c. Restrict or abrogate the authority of the Administrator or permitting authority to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.

[40 CFR 64.10]

The following emissions units are subject to the CAM provisions only for the pollutant indicated:

<b>E.U. ID No.</b>	<b>Brief Description</b>	<b>Pollutant(s) subject to CAM</b>
-001	Fossil Fuel Fired Steam Generator Unit No. 1	PM
-002	Fossil Fuel Fired Steam Generator Unit No. 2	PM
-003	Fossil Fuel Fired Steam Generator Unit No. 3	PM
-004	Fossil Fuel Fired Steam Generator Unit No. 4	PM

For ease of reference the following definitions are cited from 40 CFR 64.1 Definitions (10/03/1997):

*Exceedance shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.*

*Excursion shall mean a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.*

**TABLE H**

**PERMIT HISTORY/ID NUMBER CHANGES**

**Coal and petroleum coke-fired boilers  
Particulate matter emissions from each boiler are controlled individually by dedicated electrostatic precipitators (ESPs)**

**Table 1. Monitoring Approach**

	<u>Compliance Indicator</u>
I. Indicator	<del>Particulate Matter (PM) emissions</del> <del>Opacity (visible emissions)-</del>
Measurement Approach	The use of a 40 CFR <del>6075</del> certified continuous <del>emission</del> <del>opacity</del> monitoring system (CE <del>OMS</del> ) and data acquisition handling system (DAHS).
II. Indicator Range	Maximum <del>PM emission</del> <del>opacity</del> . An excursion is defined as any <u>daily 1-hour</u> average of <u>raw parametric PM emission</u> <del>opacity</del> greater than <u>13 mg/m<sup>3</sup> (EU -001, -002, and -003)/ 3.6 mg/m<sup>3</sup> (EU-004)±5.0%*</u> , excluding periods of start-up, shutdown and malfunction pursuant to Rule 62-210.700, F.A.C. An excursion will trigger an evaluation of the operation of the affected boiler and <u>electrostatic precipitator</u> <del>ESP</del> . Corrective action will be taken as necessary. Any excursion will trigger recordkeeping and reporting requirements.
III. Performance Criteria	
A. Data Representativeness	The <u>PM CE<del>OMS</del></u> locations meet the specifications of <del>40 CFR 75 and 40 CFR 60, Appendix B.</del>
B. Verification of Operational Status	N/A
C. QA/QC Practices and Criteria	The <u>PM CE<del>OMS</del></u> are operated and maintained in accordance with Appendix B to <u>40 CFR Part 60.75, Quality Assurance and Quality Control Procedures.</u>
D. Monitoring Frequency	<u>Raw parametric data will be monitored continuously on a 1-hour basis</u> <del>Opacity is monitored continuously.</del>
E. Data Collection Procedures	<u>Raw parametric data will be Six minute averages</u> are recorded through the automated data acquisition handling system (DAHS). <u>Daily reports with all six minute and hourly averages shall be generated. One hour averages are determined every six minutes from the average of the previous ten consecutive six minute averages.</u>
F. Averaging Period	The averaging period for <u>raw parametric data will be a daily average expressed in units of mg/m<sup>3</sup>.</u>

\* The excursion level specified in this CAM Plan was established based upon the most recent 5 years of test data provided by the applicant. The excursion level shall be re-evaluated at the time of renewal of Permit No. 0570039-039-AV based upon the new most recent 5 years of test data.